

EFFECT OF A FAVOR WHICH REDUCES FREEDOM¹

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The purpose was to show that when a favor reduces a person's freedom, it arouses "psychological reactance," a motivational state aimed at restoration of this freedom. Ss, run individually, learned they were to make 1st-impression ratings of another S (confederate) and then were given a soft drink by this S, prior to making the ratings. In a 2×2 design, the 1st-impression ratings were given low or high importance, and $\frac{1}{2}$ of each importance group received the favor, $\frac{1}{2}$, not. An opportunity was presented for S to do a favor for the confederate after the ratings. In the low-importance condition, the favor increased the likelihood that S would perform a favor in turn for the confederate, and in high importance, the favor reduced the likelihood that S would perform the return favor.

When a person receives a favor he frequently feels that he ought to perform a favor in return. However, a recent theory by Brehm³ suggests that a favor may also create an opposing tendency, that is, a favor may arouse an individual to *avoid* performing a return favor.

Briefly, the theory states that for a given individual at a given time, there is a set of behaviors in which he believes he is free to engage. Any reduction or threat of reduction in that set of free behaviors arouses a motivational state, "reactance," which is directed toward reestablishment of the lost or threatened freedom. If a person thought he was free to engage in Behaviors *X*, *Y*, and *Z*, and Behavior *X* were then somehow made impossible, he would experience reactance and would be motivated to recover his freedom to engage in *X*. Conversely, if he were "forced" to engage in *X*, his consequent reactance would lead him to avoid *X* and attempt *Y* or *Z*.

The amount of reactance experienced from any given threat to, or reduction of, freedom is a direct function of how important it is to the individual to have that freedom. Thus, the more important is the freedom of the behavior threatened or actually eliminated, the more will the individual attempt to reestablish it as free.

For example, suppose Mr. Smith approached a vending machine which sold candy bars of Brands *X*, *Y*, and *Z*. Suppose further that Smith occasionally purchased each of these three brands, but that on this occasion he intended to take Brand *X*. Normally, of course, one inserts the proper coin in a slot and then pushes a lever to select which kind of bar he wants. But suppose that this time when Smith inserted the proper coin the machine simply dispatched a bar of Brand *X* without waiting for Smith to push the appropriate lever. Because his implicit choice could not possibly have determined the machine's selection, Smith's freedom has been reduced and he should experience reactance. The amount of reactance would be directly proportional to the importance of his being free to choose Brands *Y* or *Z*, and since he does occasionally select these other brands, this freedom would have some importance to him. Smith could reduce his reactance by selecting *Y* or *Z*, although since he cannot trade *X* back into the machine, he would have to insert another coin to accomplish this mode of reducing reactance. In addition, since Smith is now motivated to avoid *X* (as

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² Now at Manhattanville Hamilton Grange Neighborhood Conservation, New York, New York.

³ "Psychological Reactions to Choice Reduction," application for research grant to the National Science Foundation, January 1962.

well as gain *Y* or *Z*), he should now think Brand *X* somewhat less attractive than he had initially thought, and think Brands *Y* and *Z* somewhat more attractive.

In interpersonal relations, a favor tends to put pressure on the favored person to return the favor. This pressure to return the favor is a threat to the freedom of the favored person in his relations with the favorer. Thus, the favored person should experience reactance, and the amount of reactance he experiences is a direct function of how important it is to him to be free of such pressure. He can reduce this reactance by "being free," that is, by *not* acting as though he were under some pressure to perform a favor in return.

Suppose, for example, that Mr. Smith has just hired a new receptionist and that all he expects of her is that she be at her desk to receive people cordially. Since this is her task, it is important for Smith to be able to evaluate her performance in this regard. That is, it is important that he be free of irrelevant pressures which might tend to influence his decision to continue employing her. Thus he would not want to learn that she was the sole supporter of her sick mother. Similarly, if she spontaneously brought him a piece of homemade cake, he would tend to feel irrelevant pressure to make a positive evaluation of her no matter how much he liked the cake and no matter how benign he thought her intentions. Since this pressure would threaten his freedom to evaluate her solely on the basis of her relevant performance, he would experience reactance. To reduce the reactance, he would try to eliminate any feeling of obligation toward her, and consequently, would appear to be unappreciative of her gift and would avoid performing any kind of return favor.

The hypothesis to be tested, then, is that a favor arouses reactance in the favored person in direct proportion to how important it is to the favored person to be free of any pressures created by the favor. This reactance will tend to result in refusal to perform a favor, subsequently, for the favorer.

METHOD

In order to test the hypothesis, male introductory psychology students, run individually, were told

they were to make first-impression ratings of another subject. A confederate of the experimenter, posing as the subject who was to be rated, gave the subject a soft drink (Coca-Cola or Pepsi Cola) prior to the rating procedure. Subjects were then asked to rate the confederate on several dimensions, and they were also given an explicit opportunity to perform a favor for the confederate. Instructions were designed to vary how important it was to the subject to be free in regard to the confederate, and control conditions in which no soft drink was given served to assess "normal" ratings of the confederate and "normal" tendencies to perform the favor for him.

Procedure

Male introductory psychology students volunteered to participate in a study of projective testing techniques, and they were given the impression by the sign-up sheet that subjects were being scheduled two-at-a-time for each experimental session. If a subject arrived prior to 5 minutes before the scheduled time, he found the door to the experimental room closed and a note which instructed him to sit and wait in one of the chairs at the door. At about 5 minutes before the scheduled starting time, another male student, actually a confederate of the experimenter, arrived, read the note, and sat down in one of the chairs. If the subject arrived after the confederate, he found the confederate sitting there. As soon as both confederate and subject were seated outside the experimental room, the experimenter came out and explained that there would be a 5-10 minute wait before the experiment began. At this point the confederate asked if he could leave for a few minutes and the experimenter gave her consent. She then sat down beside the subject and in a conversational tone explained to him that another person had asked her to collect some information on first impressions, though these first impression ratings had nothing to do with her own study on projective techniques. She told the subject he was to form his first impression solely on the basis of the other subject's (confederate's) responses to three standard questions. The experimenter added that the subject should therefore eliminate from his mind any incidental interaction that might occur between the other subject and himself.

Importance manipulation. The importance manipulation was then introduced. Half the subjects were run under low-importance instructions and half under high-importance instructions. The intent of this manipulation was to vary the extent to which subjects felt it was important to follow the experimenter's instructions of making ratings solely on the basis of the confederate's answers to the standard questions. To the extent these instructions seemed important to the subject, he should also have felt it was important for him to be free of any irrelevant factors which might also influence his perception of the confederate. Specifically, then, the importance of the freedom threatened by the favor

should covary with the importance of making accurate ratings.

To establish *low importance*, the experimenter stated that the person for whom she was collecting the first-impression ratings was an undergraduate student in sociology. She also told the subject that he need not be too concerned with being careful or accurate on the rating scale since it was merely a class project on which the sociology student was practicing.

To establish *high importance*, the experimenter stated that the person for whom she was collecting the first-impression ratings was Professor Terrell and that he had just received a large grant from the National Science Foundation to support his research. She explained that the object of the first-impression rating scale was to test how well the subject would judge another person on first impression and that Dr. Terrell's research had shown that the people who made the most accurate first-impression judgments of others would succeed (in life). She then stated that Dr. Terrell's test had been standardized on the basis of responses to the three standard questions (which the subject would hear before filling out the rating scale) and that the subject's test results would be completely meaningless unless he formed his first impression of the other subject solely on the basis of his answers to the three questions. The experimenter said that the test was very important to Dr. Terrell and that she hoped the subject would be as careful and accurate as he could be. Finally, she took the subject's name and address so that his test results could be mailed to him. To support further the high importance manipulation, a title page appeared over the three-page first impression rating scale which subjects later received inside the experimental room. This page titled the rating scale "The Terrell Success-Failure Test" and also stated that the test was copyrighted by the National Science Foundation.

Favor manipulation. The experimenter returned to the experimental room and left the subject sitting alone. In a few minutes, the confederate returned and introduced the favor manipulation. Half the subjects received a favor and half received no favor.

In the *favor* situation, the confederate returned with one soft drink which he immediately gave to the subject. The confederate refused any money offered for the soft drink. In the *no-favor* situation the confederate simply came back and seated himself by the subject.

The experimenter immediately opened the door, invited both "subjects" into the experimental room, and indicated that they should seat themselves at opposite ends of a small table. A removable shield separated the two so that although they could see each other, neither could observe what the other was writing. The experimenter explained briefly in all conditions that they were to make first-impression ratings of each other on the basis of responses to three questions which each in turn would have an opportunity to answer aloud, and she noted that the ratings were of high (or low) importance. The

experimenter alternately designated the confederate or the subject to answer the first question first, vice versa for the second question, and the same order as the first question for the third. The three questions were: "If you could travel any place in the world all expenses paid, where would you choose and why?" "What kind of woman do you want to marry?" "What occupational field do you intend to enter when you finish your schooling and what are your reasons for this choice?"

The confederate's answers to the three questions were always exactly the same and were designed to present a relatively noncommittal, though plausible picture. In answer to the three questions the confederate stated that he would like to travel to Western Europe; that he would like to marry a physically attractive, fairly intelligent woman who was also a good homemaker and party girl; and that he intended to enter the field of electrical engineering for financial reasons, to satisfy his own personal ideals, and to help other people.

After the questions had been answered the experimenter gave each a first-impression rating scale (to be described below), assured them of anonymity, and reminded them to make their ratings of each other on the basis of the three questions.

Measure of tendency to return favor. When the questionnaires were completed, the experimenter removed the shield from between the two "subjects" so that they were now seated facing each other at opposite ends of a small table. She then picked up a stack of 8.5 × 11 typing paper, placed it in front of the confederate and looking at him said, "Will one of you stack these papers into 10 piles of five for me please?" She then walked away, seated herself at some distance, and leafed through the projective test materials, although actually she could, unnoticed, watch the subject. As soon as the papers were placed in front of the confederate, he began stacking them. The experimenter recorded the number of piles of paper stacked by the confederate before the subject started to help, if he helped at all.

When the papers were stacked, the experimenter asked the confederate to take them to a secretary in a nearby office. After the confederate left, the subject was asked a series of increasingly directive questions in an attempt to ascertain whether he was in any way suspicious of the experimental procedure. Finally, the experiment and its purpose were fully explained and the subject was asked not to tell other students.

Experimental rating scale. The rating scale provided a means of measuring the effects of reactance on perceptions of the confederate, and also provided postexperimental checks on each of the experimental manipulations. It consisted of three parts. Part 1 asked subjects to place a check in 1 of 10 unlabeled boxes between pairs of antonyms to indicate their perceptions of the confederate. There were 11 items: friendly-unfriendly, mature-immature, intelligent-unintelligent, considerate-inconsiderate, deep-shallow, straightforward-devious, inter-

esting-uninteresting, kind-unkind, genuine-affected, unannoying-annoying, socially competent-socially incompetent. Part 2 was identical with Part 1, except that the subject was asked to rate himself rather than the confederate.⁴ Part 3 consisted of nine questions in answer to which the subject was to place a check mark anywhere on a 3-inch blank rating scale marked "not at all" on one end and "very much" on the other end. Four questions dealt with the subject's tendency to approach or to avoid the confederate in the future: "How much do you like the other person?" "To what extent would you like to participate in further research with the other person?" "To what extent would you like to be with the other person socially?" "To what extent would you like to have the other person for a close friend?" Questions included as postexperimental checks on the favor manipulation and on the importance manipulation will be described under Results.

Subjects

A total of 77 male introductory psychology students were used as subjects, but 17 of these were eliminated by the application of criteria determined before the experiment was run. Six could not possibly be used because they were good friends of the confederate, brought a soft drink for themselves, etc. Seven of the remaining 11 were suspicious, 3 refused to accept the drink, and 1 did not want his test results on the first-impression ratings. Inclusion of the data for these 11 subjects in the total results would have no effect on the essential outcome and conclusions which may be drawn.

Experimental Confederate

The confederate was a junior undergraduate engineering student, paid for his help in the experiment. He seemed to be an average university student, not outstanding in any particular way which would affect the results. He was trained to standardize his behavior during 28 pretest sessions.

Selection of the Favor and the Opportunity to Return the Favor

In order that the favor create pressure on the subject to act favorably toward the confederate, it had to be something "nicer" than generally occurs between total strangers, but not so nice as to arouse suspicion about the motives of the confederate. Thus it could not be the offer of a cigarette when the confederate was about to light one for himself, because such an offer is more expected than

⁴The self-ratings were obtained as a possible control for individual differences in usage of the rating scales. They were not needed for this purpose since there was relatively little variability in the ratings for the confederate. Because there was no theoretical reason for obtaining the self-ratings, and since they do not seem to clarify the phenomena under study, they are not reported.

not. Nor, on the other hand, could it be the presentation of a gold watch since that would create the impression the confederate was either crazy or perhaps up to something illegal or immoral. Pretesting convinced us that the giving of a soft drink would probably fit our needs.

In order to avoid the perception that the favor was a direct appeal to receive positive first-impression ratings, the confederate was allowed to walk away before the impression-formation task was mentioned by the experimenter.

Originally, the confederate returned with a drink for himself as well as one for the subject. But some of the pretest subjects felt the gift was not sufficiently unusual in this form, and that it would create more pressure if the confederate did not have one for himself.

The opportunity to return the favor was also selected through pretesting. Initially, the experimenter asked the confederate to move a heavy box but this opportunity had so much demand character that all subjects offered to help. Paper stacking was then tried and found to be appropriate in that about half of the pretest subjects offered to help.

Summary of Design

A 2×2 design was used in which importance of being free in regard to the confederate constituted one independent variable, and favor or no favor constituted the other. Perceptions and motivations in regard to the confederate were measured on rating scales, and an opportunity to return the favor constituted a behavioral measure. Sixty subjects in all, 15 in each of the four experimental conditions, provided data for the experimental analysis.

RESULTS

Answers to the questions intended to check the success of the manipulations were scored on a 12-category scale with 1 = "not at all" and 12 = "very much." The mean answer to the question, "How important do you personally feel these ratings are?" was 8.50 in the high-importance condition and 5.87 in the low, the difference being significant beyond the .01 level.⁵ This difference was about equal in the favor and no-favor conditions. In answer to the question, "To what extent have you tried to make these ratings completely accurate?" the high-importance subjects scored 11.07, and the low, 10.43. Even though accuracy was stressed only in the high-importance condition, the difference between the conditions on this measure is not reliable. However, since subjects in the high-importance conditions report the ratings as per-

⁵All statistical tests are two-tailed.

TABLE 1
NUMBER OF SUBJECTS WHO HELPED THE
CONFEDERATE STACK PAPERS

	Low importance	High importance
No favor		
Helped	9	7
Did not	6	8
Favor		
Helped	14	2
Did not	1	13

sonally more important than do those in the low, we may conclude the manipulation of importance was successful.

On the question, "To what extent would you go out of your way to do something nice for the other person?" subjects in the favor conditions gave a mean answer of 9.20, those in the no-favor conditions, 7.93, the difference being reliable ($p < .05$). On the question, "To what extent would you feel obligated to do something nice for the other person?" subjects in the favor conditions gave a mean answer of 8.37, subjects in the no favor, 5.00, this difference also being reliable ($p < .01$). These data indicate that the favor had the intended effect of creating pressure on subjects to perform a favor for the confederate.⁶

Performance of the Favor for the Confederate

While a favor will ordinarily create pressure on the favored person to perform a favor in return, as seen in the above questionnaire check on the favor manipulation, it was expected that the favor would also arouse reactance which would create pressure to *avoid* performance of a return favor. Since the magnitude of reactance is expected to be greater in the high-importance condition than in the low, the tendency of subjects to avoid performance of the favor for the confederate should be greater in the high-importance condition than in the low.

⁶ We have assumed that these questions tap the direct pressure of the favor more than any counter-pressure from reactance. However, it would not have been surprising if subjects in the high-importance-favor condition had reported less desire to do something nice, or less feeling of obligation, than subjects in the low-importance-favor condition. The fact that this did not occur is somewhat puzzling and will be taken up in the Discussion.

The no-favor conditions show the strength of subjects' tendency to help the confederate stack papers in the absence of his having done them a favor, and they also show whether or not there is any effect of the importance manipulation on this tendency.

Table 1 shows the number of subjects in each condition who did or did not help to stack papers. As intended, about half (16 of 30) of the subjects in the no-favor conditions helped. This proportion was planned since it allows the detection of both increased and decreased tendencies to perform the favor in the favor conditions. It should also be noted that the slight difference between high- and low-importance conditions is well within chance variation and is consistent with the assumption that the importance manipulation per se had no effect on the tendency to help stack papers.

The behavior of subjects in the favor conditions, however, is strikingly different from the behavior of those in the no-favor conditions. In the low-importance condition, where reactance is presumably low, 14 of the 15 subjects helped stack papers. This indicates that the favor created a strong pressure on subjects to perform a return favor, as expected. But in the high-importance condition, only 2 of the 15 subjects helped stack papers. Clearly in the high-importance condition, there is not only some *resistance* to helping the confederate, there is a strong motivation to *avoid* helping the confederate. Thus, these data are consistent with the hypothesis that reactance is aroused by a favor when it is important to be free of pressures created by favors, and this reactance leads to avoidance of doing a return favor.

Ratings of the Confederate

While the ratings have no instrumental value for the reduction of reactance, it was expected that they would reflect negative feelings toward the confederate and a tendency to "bend over backwards" not to make positive ratings of him in the high-importance-favor condition. However, this effect appeared only for the adjective rating "friendly-unfriendly," on which the confederate was rated more positively in the favor than in the

no-favor condition under low importance. This increase in perceived friendliness of the confederate in the favor condition does not occur where importance was high, the interaction among the four conditions being significant by analysis of variance at the .05 level. Thus, the favor fails to make the confederate appear more friendly when it also arouses reactance.

Differences on other items, however, are confined to the effect of the importance manipulation, the effect being that the confederate is rated somewhat less positively in the high- than in the low-importance condition on "interesting-uninteresting," "socially competent-incompetent," and "straight forward-devious," particularly in the no-favor condition. No interaction is significant and it therefore appears that the high-importance instructions simply lead subjects to rate the confederate somewhat more conservatively. A similar but weaker trend appears in the self-rating data. No differences appeared on the approach-avoidance items.

DISCUSSION

It was hypothesized that a favor which reduces a person's freedom arouses reactance and a consequent desire to be free in regard to the favorer. Thus, when a person experiences relatively great reactance from receiving a favor, he will tend to avoid performing a return favor even when there is a clear opportunity to do so. This reasoning is supported rather well by the results of the present experiment. Where the importance of being free in regard to the confederate was relatively low, the favor increased the tendency of subjects to perform the return favor. But where the importance of being free was relatively great, the favor decreased subjects' tendency to perform the return favor.

It might be thought that the confederate inadvertently behaved differently in the different experimental conditions, and that such differences in behavior account for the obtained effects. However, in addition to the fact that the confederate was well trained prior to the beginning of the experiment, differences in the confederate's behavior strong enough to affect the performance of the return

favor should also have affected the ratings. But as we have seen, there were no differences as a function of the favor manipulation except on "friendliness." In particular, there were no differences on the relevant items, "straightforward-devious," "genuine-affected," and "socially competent-socially incompetent." Thus, it does not seem plausible to account for the results by supposing that the confederate behaved differently prior to the ratings.

Neither is it likely that subjects were trying to show the experimenter they were unaffected by having received the soft drink, since after the experimenter placed the paper in front of the confederate, she clearly removed herself from the experimental table and proceeded to leaf through the projective testing materials, apparently not paying attention to the stacking. In addition, subjects in the high-importance-favor condition showed no greater desire to make accurate ratings (11.00) than those in the high-importance-no-favor condition (11.13) although they presumably would have if they had been trying to show the experimenter they were unaffected by the favor.

A problem for which we have no completely satisfactory solution is the discrepancy between overt and verbal behavior: in the high-importance-favor condition, subjects reported a relatively strong desire and obligation to do something for the confederate although when actually given the opportunity to do something, only 2 out of 15 did. The overt behavior, of course, is consistent with expectation. The question centers, then, on why subjects *said* they wanted to do something for the confederate.

Our best guess is that subjects were trying to be as objective as possible in rating the confederate. In other words, the subjects distinguished between the fact that they had received a favor from the confederate and consequently owed him something in return, and their experiencing reactance and the consequent disinclination actually to do anything for him. Subjects attempted to make the ratings objective by basing them on the "objective" situation. On the other hand, the stacking of papers apparently had nothing to do with the rating task (or any formal aspect

of research) and therefore more clearly revealed the subjects' true motivational state in regard to the confederate.

If we are correct in our interpretation that the favor aroused a motivational state counter to the normal pressure it creates because it reduced the individual's freedom, then a way is opened for the understanding of a variety of interpersonal phenomena. For while a favor is a specific type of inducing force, the theoretical explanation is more general. The

critical question is not what type of stimulus is used to place pressure on a person to perform a given behavior, but rather to what extent the resultant pressure tends to reduce or threaten to reduce the individual's freedom. When specifiable freedoms are reduced or reduction is threatened, it can be predicted that the individual will experience reactance and will attempt to regain the lost or threatened freedom.

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